COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Island Creek Coal Company - VP #1 Preparation Plant
Keen Mountain, Buchanan County, Virginia
Permit No. SWRO10354

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Island Creek Coal Company has applied for a Title V Operating Permit for its VP #1 Preparation Plant. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: _____ Date: April 18, 2003

Air Permit Manager: _____ Date: April 18, 2003

Deputy Regional Director: _____ Date: April 18, 2003

FACILITY INFORMATION

Permittee
Island Creek Coal Company
P.O. Drawer L
Oakwood, VA 24631

Facility Location
VP #1 Preparation Plant
Route 638, Keen Mountain,
Buchanan County, Virginia

Facility ID No. 51-027-0011

SOURCE DESCRIPTION

SIC Code: 1222 - Coal preparation

The facility cleans and dries coal prior to shipment by rail or truck. The facility utilizes a coal-fired thermal dryer to dry the coal cleaned by the wet process preparation plant that includes froth flotation and vacuum filtration.

Air emissions from the facility include Particulate Matter (PM, includes PM-10) from all the dry processing units; Volatile Organic Compounds (VOC) from the thermal dryer and wet coal processing; and PM, PM-10, Nitrogen Oxides (NO_X), Sulfur Dioxide (SO_2), Carbon Monoxide (CO) and trace amounts of Hazardous Air Pollutants (HAP) from the thermal dryer.

The facility has not been operated since 1993; however, it is considered a Title V major source because potential emissions of PM, NOx, SO_2, and CO are above the major source threshold. This facility is located in an attainment area for all pollutants.

COMPLIANCE STATUS

The facility was inspected at least once each year prior to the temporary shutdown. Previous inspections have found the facility operating in compliance. According to the application the facility is in compliance with all applicable requirements.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant(s) Controlled
TP1	Z01	Run-of-Mine (ROM) coal from skip to ROM hopper	700 TPH	Full Enclosure	D01	PM/PM-10
TP2	Z01	ROM coal from hopper to bar screen	700 TPH	Full Enclosure	D01	PM/PM-10
TP3	Z01	ROM coal from bar screen to collection belt	700 TPH	Full Enclosure	D01	PM/PM-10
TP4	Z01	ROM coal or rock from bar screen to crusher	700 TPH	Full Enclosure	D01	PM/PM-10
TP5	Z01	ROM coal or rock from crusher to refuse belt or collection belt	700 TPH	Full Enclosure	D01	PM/PM-10
TP6	Z01	ROM coal from collection belt to silo feed belt	700 TPH	Full Enclosure	D01	PM/PM-10
TP7	Z01	ROM coal from silo feed belt to RC silo 1 or silo 2 transfer belt	700 TPH	Full Enclosure	D03	PM/PM-10
TP8	Z01	ROM coal from RC silo 2 reclaim belt to plant feed belt	700 TPH	Full Enclosure	D04	PM/PM-10
TP9	Z01	ROM coal from RC silo 1 to plant feed belt	700 TPH	Full Enclosure	D04	PM/PM-10
TP10	Z01	Fine coal collection belt to thermal dryer feed belt 1 or by-pass system	347 TPH	Full Enclosure	D05	PM/PM-10
TP11	Z01	Thermal dryer feed belt 1 to TD feed belt 2	347 TPH	Full Enclosure	D06	PM/PM-10
TP12	Z01	Thermal dryer feed belt 2 to thermal dryer	347 TPH	Full Enclosure	D07	PM/PM-10
TP13	Z01	Thermal dryer to dried coal belt 1	342 TPH	Full Enclosure	D07	PM/PM-10

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant(s) Controlled
TP14	Z01	Thermal dryer dried coal belt 1 to dried coal belt 2	342 TPH	Full Enclosure	D20	PM/PM-10
TP15	Z01	Thermal dryer dried coal belt 2 to stockpile or load-out belt	342 TPH	Full Enclosure	D09	PM/PM-10
TP16	Z01	CC stockpile conveyor A to conveyor B	436 TPH	Full Enclosure	D10	PM/PM-10
TP17	Z01	CC stockpile reclaim belt to conveyor C	436 TPH	Full Enclosure	D11	PM/PM-10
TP18	Z01	CC stockpile conveyor C to conveyor D	436 TPH	Full Enclosure	D12	PM/PM-10
TP19	Z01	CC stockpile conveyor D to plant by-pass belt 2	436 TPH	Full Enclosure	D13	PM/PM-10
TP20	Z01	Plant by-pass belt 2 to load-out belt	436 TPH	Full Enclosure	D09	PM/PM-10
TP21	Z01	Load-out belt to rail load-out	436 TPH	Full Enclosure	D14	PM/PM-10
TP22	Z01	Refuse from refuse collection belt to refuse belt	264 TPH	Partial Enclosure	D21	PM/PM-10
TP23	Z01	Refuse from refuse belt to refuse bin 1	264 TPH	Partial Enclosure	D02	PM/PM-10
TP24	Z01	Refuse from refuse bin 1 to refuse tram	264 TPH	Partial Enclosure	D02	PM/PM-10
TP25	Z01	Refuse from tram to refuse bin 2	264 TPH	Partial Enclosure	D16	PM/PM-10
TP26	Z01	Clean Coal Stockpile coal load-in	436 TPH	N/A	N/A	N/A
TP27	Z01	Clean coal load-out to railcar	436 TPH	Chute	D15	PM/PM-10
TP28	Z01	Refuse bin load-out to refuse truck	264 TPH	Chute	D17	PM/PM-10
CR1	Z01	ROM crusher	700 TPH	Full Enclosure	D01	PM/PM-10
HR	Z01	Unpaved haul roads-refuse	N/A	Water Spray	D19	PM/PM-10

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant(s) Controlled
CC Pile	Z01	Clean coal stockpile	5 acres	Water Content	N/A	PM/PM-10
TD1	P001	Thermal Dryer #1 (coal-fired)	154 million Btu/hr	Flex-Kleen Venturi Scrubber	D18	SO_2, PM, PM-10
PP-Fr	Z01	Froth flotation	N/A	N/A	N/A	N/A
PP-Va	P002	Vacuum filtration	N/A	N/A	N/A	PM/PM-10
PP-Th	Z01	Thickener	N/A	N/A	N/A	PM/PM-10
Coal LO	Z01	Dust/Freeze control	N/A	N/A	N/A	PM/PM-10

EMISSIONS INVENTORY

A copy of the 2001 permit application emission inventory is included in the application. Emissions are summarized in the following table:

2001 Actual Emissions	Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO_2	PM-10	NO_x
Total	0.0	0.0	0.0	0.0	0.0

The facility did not operate in 2001.

EMISSION UNIT APPLICABLE REQUIREMENTS

Thermal Coal Dryer #1 (TD1): ENI coal-fired "Coal Flo" – Fluidized Bed – Size #8

Limitations

The facility was constructed in 1965 and there have been no subsequent installations or modifications to the facility. Article 15 of Title 9, Section 5, Chapter 40 (9 VAC 5-40-1960 et. al.), Emission Standards for Coal Preparation Plants applies to the facility. The only specific provision contained in the article is the following:

> Particulate emissions from the thermal dryer are limited to 105 lb/hr.

Since Article 15 applies to the facility, Article 4 of Title 9, Section 5, Chapter 40 (9 VAC 5-40-240 et. al.), Emission Standards for General Process Operations does not apply.

Article 15 references Article 1 of Chapter 40 that pertains to visible emissions limits. The only specific requirement is for the visible emissions as follows:

> No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity.

Article 1 of Chapter 40 requires the control of fugitive dust/emissions by various work practice and housekeeping measures.

Monitoring

The facility is a major source subject to Title V permitting and therefore subject to 40 CFR Part 64 – Compliance Assurance Monitoring (CAM). An emission unit is subject to CAM if it meets all of the following criteria on a pollutant-by-pollutant basis:

a. Emits or has the potential to emit uncontrolled quantities of one or more regulated air pollutants at or above major source levels,

b. Is subject to one or more emissions limitations for the regulated air pollutants for which it is major before control, and

c. Uses an add-on control device to achieve compliance with the emissions limitations.

The thermal dryer is the only emission unit currently at VP #1 that meets all the above criteria as follows:

a. The thermal dryer emits uncontrolled quantities of PM, PM-10, NOx, SO_2, and CO above major source levels,

b. The thermal dryer is subject to the PM emission limit of 105 lb/hr as indicated by 9 VAC 5-40-1980.A, and

c. The thermal dryer uses a venturi scrubber to comply with the PM emission limit.

Because the thermal dryer meets the above criteria only when considering PM, CAM is required only for PM. The applicant submitted CAM information as required by 40 CFR 64.5, Deadlines for Submittals.

The permittee will be required to install the following:

a. A monitoring device for the temperature of the gas at the exit of the thermal dryer;

b. A monitoring device for the measurement of the pressure loss through the venturi constriction of the control device; and

c. A monitoring device for the measurement of the water supply pressure to the control equipment.

The permittee will be required to monitor, operate, calibrate and maintain the above-listed devices according to the CAM plan proposed by the applicant and summarized in the following table:

Thermal Dryer Compliance Assurance Monitoring Plan

	Indicator No. 1	Indicator No. 2	Indicator No. 3
I. Indicator	Exhaust Gas Temperature	Pressure Loss	Water Supply Pressure
A. Measurement Approach	Temperature probe	Differential pressure gage	Pressure gage
II. Indicator Range	To be established during initial performance tests	An excursion is defined as a pressure loss through the scrubber of less than 31 inches water column	An excursion is defined as a water supply pressure of less than 20 pounds per square inch gage
III. Performance Criteria A. Data Representativeness	The temperature probe monitors the temperature of the gas at the exit of the thermal dryer	The differential pressure gage monitors the static pressures upstream and downstream of the scrubber's venturi throat	The water pressure gage monitors water supply pressure to the scrubber The gage is to be located close to the water discharge point.
B. Verification of Operational Status	The monitoring device shall be installed and calibrated according to manufacturer's recommendations prior to initial performance tests	The monitoring device shall be installed and calibrated according to manufacturer's recommendations prior to initial performance tests	The monitoring device shall be installed and calibrated according to manufacturer's recommendations prior to initial performance tests
C. QA/QC Practices and Criteria	The device is to be certified by the manufacturer to be accurate within ± 3° Fahrenheit and calibrated annually based on the manufacturer's recommendations	The device is to be certified by the manufacturer to be accurate within ± 1 inch water gage and calibrated annually based on the manufacturer's recommendations	The device is to be certified by the manufacturer to be accurate within ± 5% of design water supply pressure and calibrated annually based on the manufacturers recommendations
D. Monitoring Frequency	Measure continuously	Measure continuously	Measure continuously
E. Data Collection Procedures	Record continuously on a chart recorder	Record continuously on a chart recorder	Record continuously on a chart recorder
F. Averaging Period	None	None	None

The indicators to be monitored reflect the performance of the venturi scrubber and thermal dryer. The range of operation for the scrubber pressure drop and the scrubber water supply pressure indicators are based on manufacturer design. The thermal dryer exit gas temperature range will be determined during future performance tests. Performance tests for particulate emissions from the thermal dryer will be required when the dryer is re-started and then once every two years. Performance test data will be used to verify the accuracy of each indicator range so that ongoing compliance with the PM emission limit can be reasonably assured. Operation of the thermal dryer and venturi scrubber so that each indicator is maintained within the appropriate range will provide a reasonable assurance of compliance with the PM emission limit. The monitoring proposed in the Compliance Assurance Monitoring plan is the same as that required by 40 CFR Part 60, Subpart Y, Standards of Performance for Coal Preparation Plants.

The permit will contain conditions requiring the permittee to conduct monitoring in accordance with 40 CFR 70.6(a)(3)(i) and 40 CFR 64.6(c).

The permit contains a requirement for weekly visual observations of the thermal dryer exhaust stack. If visible emissions are present during any of the observations, a six-minute visible emission evaluation must be performed in accordance with 40 CFR 60, Appendix A, Method 9. If during the six minutes, any readings above 20% opacity are noted, a one-hour Method 9 VEE is required. A Method 9 evaluation will not be required if the visible emissions condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include but are not limited to the following:

a. Monitoring data, monitor performance data, monitor maintenance and corrective actions for each thermal dryer exit gas temperature probe, venturi scrubber differential pressure gage and the venturi scrubber water supply pressure gage;

b. Monthly and annual production of dried coal from the thermal dryer. Annual production shall be calculated monthly as the sum of each consecutive 12-month period;

c. Monthly and annual consumption of coal by the thermal dryer. Annual consumption shall be calculated monthly as the sum of each consecutive 12-month period;

d. Performance tests;

e. Results of the weekly visual observations of the thermal dryer exhaust stack and any visible emissions evaluations; and

f. Results of the annual inspections of the cyclone.

Testing

The permittee will be required to conduct a performance test for particulate matter from the thermal dryer exhaust within 180 days of start-up of the thermal dryer. The permittee will then be required to conduct performance tests for particulate matter from the thermal dryer exhaust once every two years and upon request by the DEQ. Performance testing will provide additional assurance of compliance with the PM emission limit and maintain an accurate range of operation for each indicator monitored through the CAM plan.

A table of test methods has been included in the permit for any additional testing that may be performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

In addition to the information included in the semi-annual monitoring report required by the Recordkeeping and Reporting section in the General Conditions of the Title V permit, the semi-annual monitoring report shall also include the following:

a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; and

b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

Streamlined Requirements

There are no streamlined requirements.

Facility-wide Requirements

Limitations

The permit includes the coal processing and cleaning equipment as the facility-wide equipment.

The coal processing and cleaning equipment is subject to 9 VAC 5, Chapter 40, Article 15, Emission Standards for Coal Preparation Plants. Article 15 references Article 1 of Chapter 40 that pertains to visible emissions limits. The only specific requirement is for the visible emissions as follows:

> No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity.

Article 1 of Chapter 40 requires the control of fugitive dust/emissions by various work practice and housekeeping measures.

Monitoring

The monitoring requirements included in the permit meet Part 70 requirements.

The permit contains a requirement for weekly visual observations of the coal processing equipment. If visible emissions are present during any of the observations, a six-minute visible emission evaluation must be performed in accordance with 40 CFR 60, Appendix A, Method 9, on the emissions unit. If during the six minutes, any readings above 20% opacity are noted, a one-hour Method 9 VEE is required. A Method 9 evaluation will not be required if the visible emissions condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include results of the weekly visual observations and any visible emissions evaluations.

Testing

The permit does not require source tests pertaining to the coal processing and cleaning equipment. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Facility-wide reporting requirements are discussed in the General Conditions section below.

Streamlined Requirements

There are no streamlined requirements.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§2.1-20.01:2 and §§10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within 4 hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within 2 days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within 4 day time business hours of the malfunction.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

STATE-ONLY APPLICABLE REQUIREMENTS

Island Creek Coal Company did not identify any state-only requirements in their application. Therefore, no state-only applicable requirements have been included in the permit.

FUTURE APPLICABLE REQUIREMENTS

Island Creek Coal Company did not identify any future applicable requirements in their application, and DEQ is unaware of any future requirements that may apply during the life of the Title V permit. Therefore, no future applicable requirements have been included in the permit.

INAPPLICABLE REQUIREMENTS

40 CFR 60, Subpart Y, New Source Performance Standards for Coal Preparation Plants does not apply since the facility was constructed prior to the effective date of October 24, 1974.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 4 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state, "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

COMPLIANCE PLAN

Island Creek Coal Company is currently in compliance with all applicable requirements. No compliance plan was required in the application.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
INS-01	Storage Tanks	5-80-720 B.2	VOC	N/A
INS-02	Emergency Dryer Bypass	5-80-720 B	VOC, NO_x, SO_2, PM-10, CO	N/A
INS-03	Thermal Dryer Pre-Igniter	5-80-720 B	VOC, NO_x, SO_2, PM-10, CO	N/A
Coal LO	Railcar Load-Out Sprays	5-80-720 B.2	VOC	N/A

[1]The citation criteria for insignificant activities is as follows:
9 VAC 5-80-720 B - Insignificant due to emission levels.

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in *The Virginia Mountaineer* newspaper in Grundy, Virginia on January 30, 2003. EPA was sent a copy of the draft permit and notified of the public notice by electronic mail on January 24, 2003. The affected states, including West Virginia, Kentucky, North Carolina and Tennessee, were sent a copy of the public notice in a letter dated January 24, 2003. All persons on the Title V mailing list were sent a copy of the public notice by electronic mail, facsimile or letter dated January 30, 2003.

Public comments were accepted from January 30, 2003, through February 28, 2003. No comments were received from the public, the affected states or the EPA regarding the draft permit.